APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,804	04/06/2001	Timothy Roy Block	IBM / 180	6868

7590 12/29/2003	EXAMINER
Scott A. Stinebruner	CHU, GABRIEL L
Wood, Herron & Evans, L.L.P.	

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DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _06 April 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-30_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _20-22 and 25-30_ is/are allowed.

6)☒ Claim(s) _13 and 14_ is/are rejected.

7)☒ Claim(s) _1-12,15-19,23 and 24_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:
   1.☐ Certified copies of the priority documents have been received.
   2.☐ Certified copies of the priority documents have been received in Application No. _____.
   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
    since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
    37 CFR 1.78.
    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
    reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _2,3_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1.   Claims 1-3, 9, 15, 16, and 23 are objected to because of the following

informalities:

Referring to claim 1, it is not clear if in "(a) detecting a failure in a first node

among a plurality of nodes in a clustered computer system with a first group member

resident on the first node" "detecting is performed with a first group member" or "a

clustered computer system comprises a first group member". From claims 2 and 3, it is

apparent that claim 1 is intended to refer to the latter. For the purpose of examination,

this is interpreted as "(a) detecting a failure in a first node among a plurality of nodes in

a clustered computer system, said clustered computer system comprising a first group

member resident on the first node".

Referring to claims 2 and 3, from the language of the claims, it is apparent that

claims 2 and 3 are each intended to depend from claim 1 instead of claim 2.

Referring to claims 9 and 23, "the group member" is understood to refer to "the

second group member comprises", correcting for clarity of antecedence.

Referring to claims 15 and 16, it is not clear if the repeated utilization of the

reference characters "(a)" and "(b)" are intended to directly further modify the reference

characters of claim 13. For the purpose of examination, claim 15 is understood to refer

to "(c)" instead of "(a)" and "(d)" instead of "(b)". Further for the purpose of examination,

claim 16 is understood to refer to "(e)" instead of "(a)" and "(f)" instead of "(b)".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by

US 2003/0159084 to Murphy et al. Referring to claim 13 Murphy et al. disclose (a) in a

group member resident on a first node among a plurality of nodes in a clustered

computer system, initiating a shutdown of the first node (From paragraph 31,

"Accordingly, when sub-clusters form, the integrity protectors 202 and 204 initiate a

"vote count" for the sub-clusters that are formed. As a result, those nodes within sub-

clusters that do not represent a majority of a total number of votes available (total votes

available) in the clustered computing system will be shutdown."); and (b) shutting down

the first node in response to initiation of the shutdown by the group member (From

paragraph 31, "Since there can be at most one sub-cluster with a majority of the total

votes available, at most one sub-cluster will remain active.").

Referring to claim 14, Murphy et al. disclose detecting a failure in the first node

with the group member, wherein initiating the shutdown of the first node is performed in

response to detecting the failure (From paragraph 31, "Accordingly, when sub-clusters

form, the integrity protectors 202 and 204 initiate a "vote count" for the sub-clusters that

are formed. As a result, those nodes within sub-clusters that do not represent a majority of a total number of votes available (total votes available) in the clustered computing system will be shutdown.").

Allowable Subject Matter

4.   Claims 1-12 and 23-24 are objected to as having objectionable subject matter, but would be allowable if rewritten to overcome the indicated objectionable subject matter. Referring to claims 1-12, the prior art does not teach or fairly suggest (c) in response to detecting the failure, preemptively terminating a second group member resident on the first node prior to any detection of the failure by the second group member, in a method of shutting down a node in a clustered computer system, the method comprising: (a) detecting a failure in a first node among a plurality of nodes in a clustered computer system with a first group member resident on the first node; (b) in response to detecting the failure, transmitting a signal to each of the other nodes in the plurality of nodes to initiate on each of the other nodes a node leave operation that terminates clustering with the first node.

Referring to claims 23-24, the parent claim has been indicated as allowable.

5.   Claims 15-19 are objected to as being dependent upon a rejected base claim and containing objectionable subject matter, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, further correcting for the indicated objectionable subject matter. Referring to claims 15-19, the prior art does not teach or fairly suggest, in light of the parent claims, shutting down the first node comprises: (a) transmitting a signal to each of the other

nodes in the plurality of nodes to initiate on each of the other nodes a node leave
operation that terminates clustering with the first node; and (b) preemptively terminating
a second group member resident on the first node prior to any detection of the failure by
the second group member.

6.   Claims 20-22, and 25-30 are allowed.

7.   The following is an examiner's statement of reasons for allowance: Referring to
claims 20-22 and 25, the prior art does not teach or fairly suggest preemptively
terminating the second group member resident on the first node prior to any detection of
the failure by the second group member, in an apparatus, comprising: (a) a memory
accessible by a first node among a plurality of nodes in a clustered computer system;
and (b) first and second group members resident in the memory, the first group member
configured to detect a failure in the first node; and (c) a program resident in the
memory, the program configured to shut down the first node in response to the detected
failure by transmitting a signal to each of the other nodes in the plurality of nodes to
initiate on each of the other nodes a node leave operation that terminates clustering
with the first node.

Referring to claims 26-28, the prior art does not teach or fairly suggest
preemptively terminating a second group member resident on the first node prior to any
detection of the failure by the second group member, in a clustered computer system,
comprising first and second nodes coupled to one another over a network, wherein: (a)
the first node is configured to shut down in response to a failure detected in the first
node by a first group member resident on the first node by transmitting a signal to the

second node; and (b) the second node is configured to initiate a node leave operation that terminates clustering with the first node in response to the signal from the first node.

Referring to claims 29 and 30, the prior art does not teach or fairly suggest preemptively terminating the second group member resident on the first node prior to any detection of the failure by the second group member, in a program product, comprising: (a) first and second group members, the first group member configured to detect a failure in a first node among a plurality of nodes in a clustered computer system; (b) a program configured to shut down the first node in response to the detected failure by transmitting a signal to each of the other nodes in the plurality of nodes to initiate on each of the other nodes a node leave operation that terminates clustering with the first node; and (c) a signal bearing medium bearing the program.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5704031 to Mikami et al.

US 5748883 to Carlson et al.

US 5991518 to Jardine et al.

US 6108699 to Moiin

US 6314526 to Arendt et al.

US 6438705 to Chao et al.

US 6442713 to Block et al.

US 6460149 to Rowlands et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (703) 308-7298. The examiner can normally be reached on weekdays between 8:30 AM an d 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel, Jr. can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

gc

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